

## WHAT IS CLAIMED IS:

1. A method for rearranging data comprising the steps of:

- a) storing data in a first data storage section;
- 5 b) storing data rearrangement information in a stack; and
- c) reading the data stored in the first data storage section, and storing the data in a second data storage section based on the data rearrangement information stored in
- 10 the stack.

2. The method according to claim 1, wherein the data rearrangement information contains an address of the second data storage section.

15 3. The method according to claim 2, wherein the first data storage section is a register; and

20 the second data storage section is a random access memory.

4. A method for rearranging data comprising the steps of:

- a) storing a plurality of data in a first data storage section;
- 25 b) storing data rearrangement information in a stack; and
- c) reading the plurality of data stored in the first data storage section in an order based on the data rearrangement information stored in the stack, and storing
- 30 the data in a second data storage section.

5. The method according to claim 4,  
wherein the data rearrangement information contains  
an address of the second data storage section.

5 6. The method according to claim 5,  
wherein the first data storage section is a random  
access memory; and  
the second data storage section is a register.

10 7. The method according to claim 5,  
wherein the first data storage section and the  
second data storage section are random access memories.

15 8. A method for rearranging data comprising the  
steps of:

a) storing a plurality of data in a first data  
storage section;  
b) storing data rearrangement information in a  
stack; and  
20 c) reading the plurality of data stored in the first  
data storage section, and storing the data in a second data  
storage section based on the data rearrangement information  
stored in the stack.

25 9. The method according to claim 8,  
wherein the data rearrangement information contains  
an address of the second data storage section.

30 10. The method according to claim 9,  
wherein the first data storage section and the  
second data storage section are random access memories.

11. The method according to claim 1,  
wherein the reading and the storing are carried out  
by using an address conversion table and a corresponding  
stack pointer.

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12. The method according to claim 1, further  
comprising:

calculating logic OR operation or logic ADD  
operation of a read address and an offset register.

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13. The method according to claim 11, wherein the  
reading and the storing are carried out by using a register  
substituted for the stack pointer.

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14. The method according to claim 11, wherein the  
data stored in the address conversion table includes byte  
write information.